MISSOURI BOTANICAL GARDEN

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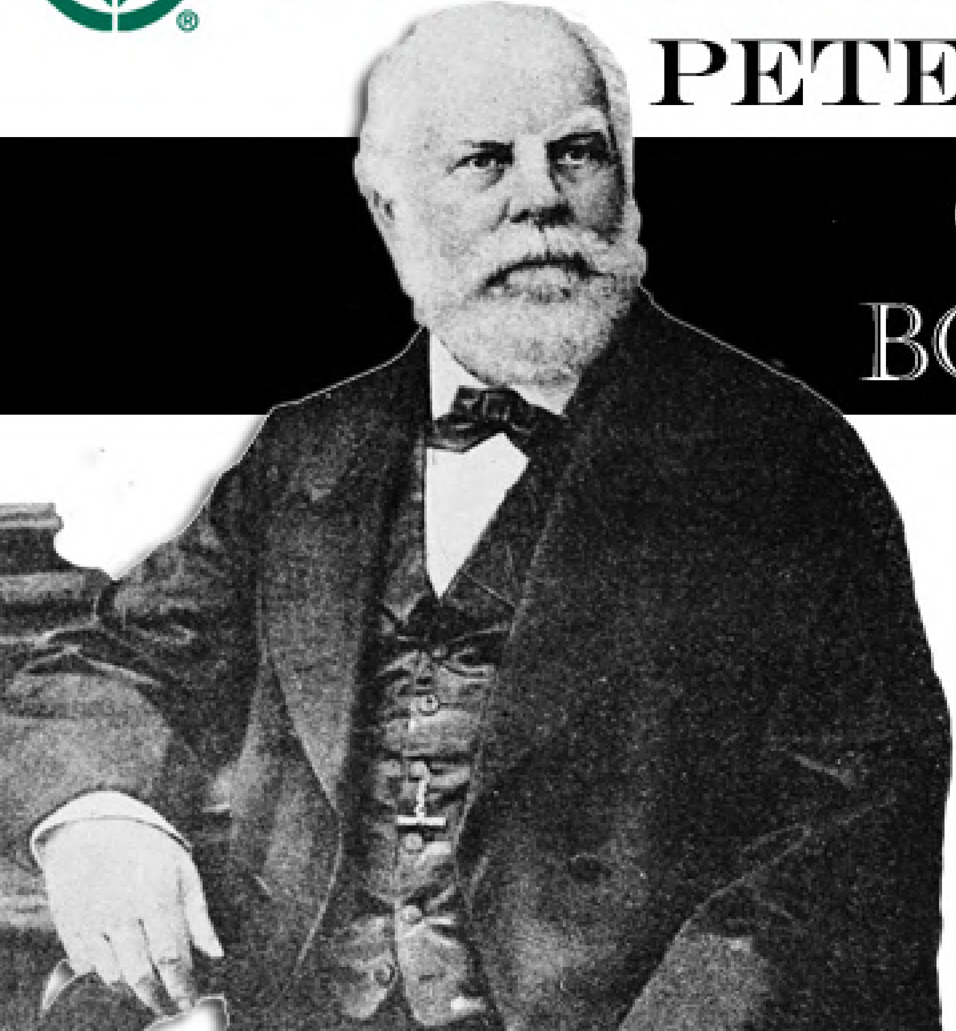
GEORGE ENGELMANN BOTANICAL NOTEBOOKS



Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

[illegible]

1388

Echinocactus

Cereus Johnsonii. ? nov sp   C C Parry

Flower (including young fruit) 2½ inches in length 2½ inches broad. — Sepals imbricated. outer (lower) small ovate, orbicular somewhat in alternate rows with scarious margins. inner petaloid sepals 1½ inches in length. Color light pink.

Stamens half the length of the inner sepals nearly as long as the cylindric style: style tipped with 9 nine radiate stigmata. curving inwards.

Axis simple 6 inches high. 3 inches in diameter slightly tapering at base and summit: rows of spines 21. inclined to spiral. ribs broad intervals shallow.

Spines 4 central of nearly equal length upper and lower slightly longer. 1 — 1½ inches long; radiate spines 10 – ½ to ¾ inches long

Whole plant of a pale glaucous color closely set with interlocking spines of a light brown or pinkish color. flowers crowning the summit

Hab — St George Utah

fl. Bot garden June 14th 1870   Coll. J. E. Johnson 1870

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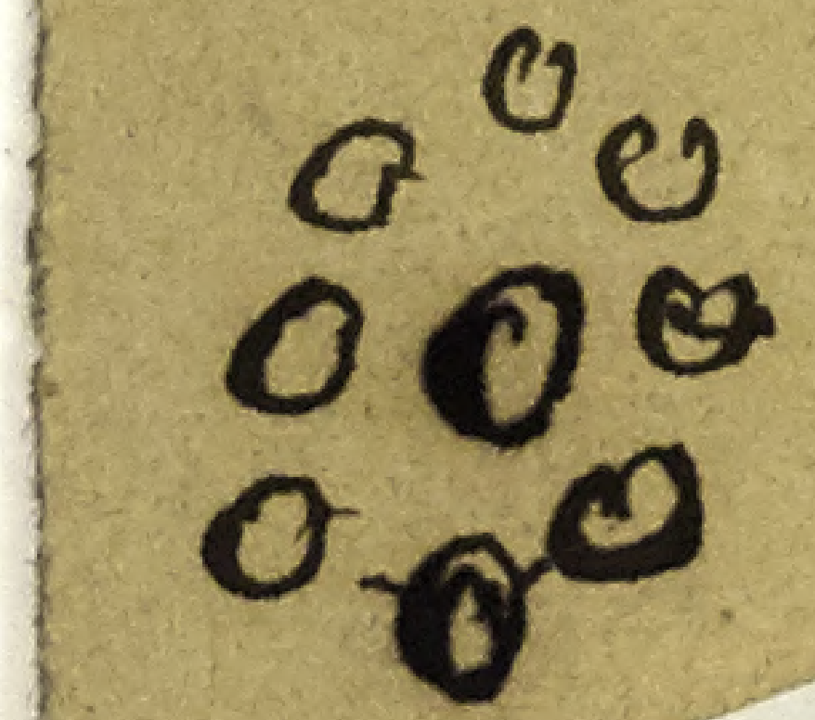
Munich Nov 1857

Ech. Karwinskii seems very near, if not only a variety of Pfeifferi. The specimen is oval-cylindrical, 12-inches high; 17 ribs, more green areolae ~~rather~~ more distant; spines yellow; 8 radial, 1 central stouter than the rest; ribs less sharp or at least less compressed than in the E. Pfeifferi.

1589



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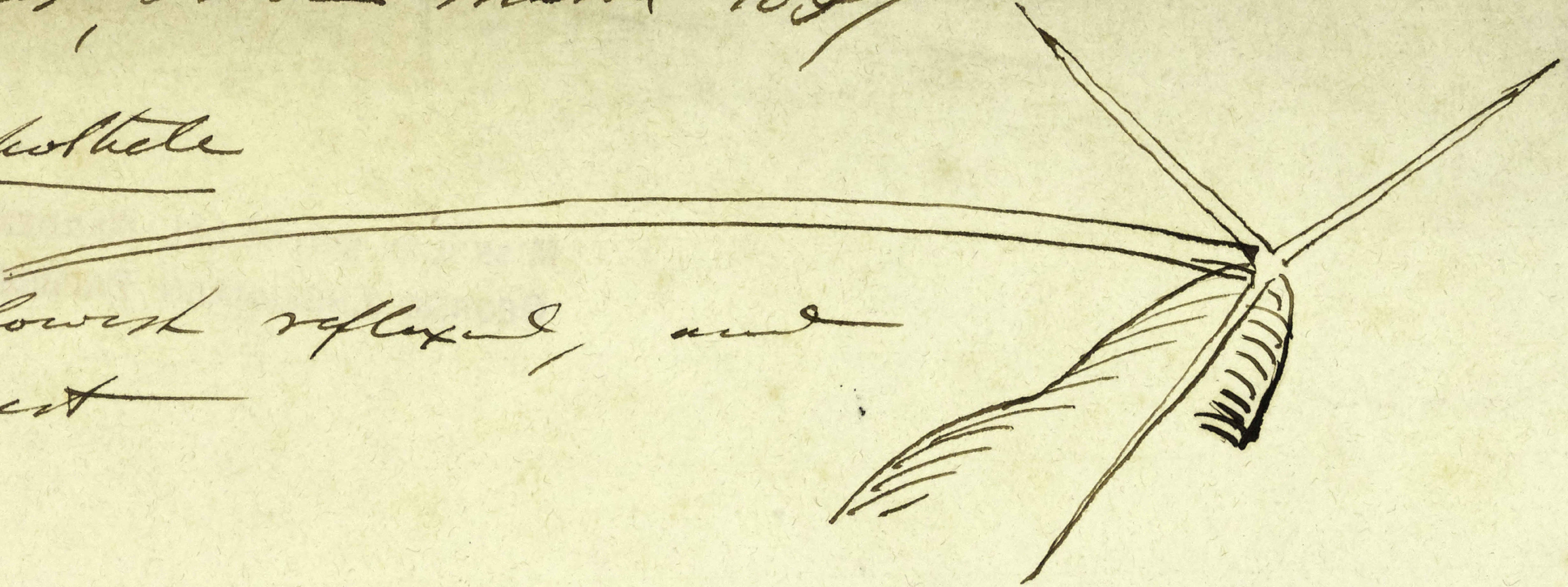
Notes of Dr Poselger, Berlin March 1857

Echinocactus lophothele

4 spines, the lowest reflexed, and much the longest



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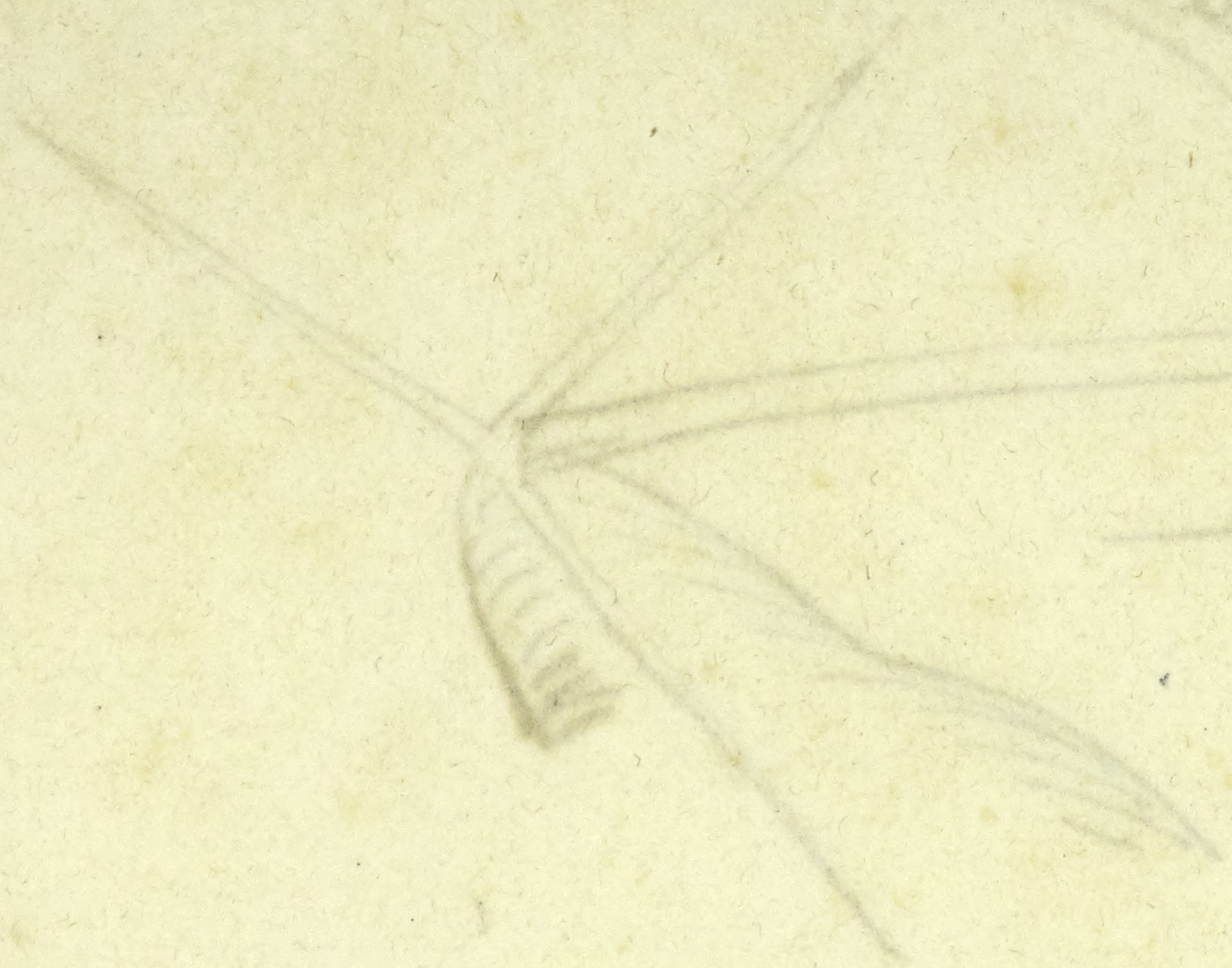


Munich Nov 1857

1391

I find only a few remnants of the splendid old Collection of Cactaceae, sent by Karwinski etc and described by Zuccarini & Martius.

Echinoc. leucacanthus is 4 inches high, glaucous with white spines ½ – ¾ inch long, ribs obtuse. resembling somewhat those of E. horizonthalon

Echinocactus cophothele

[illegible] exfoliate

(woolly) young ones smooth brown

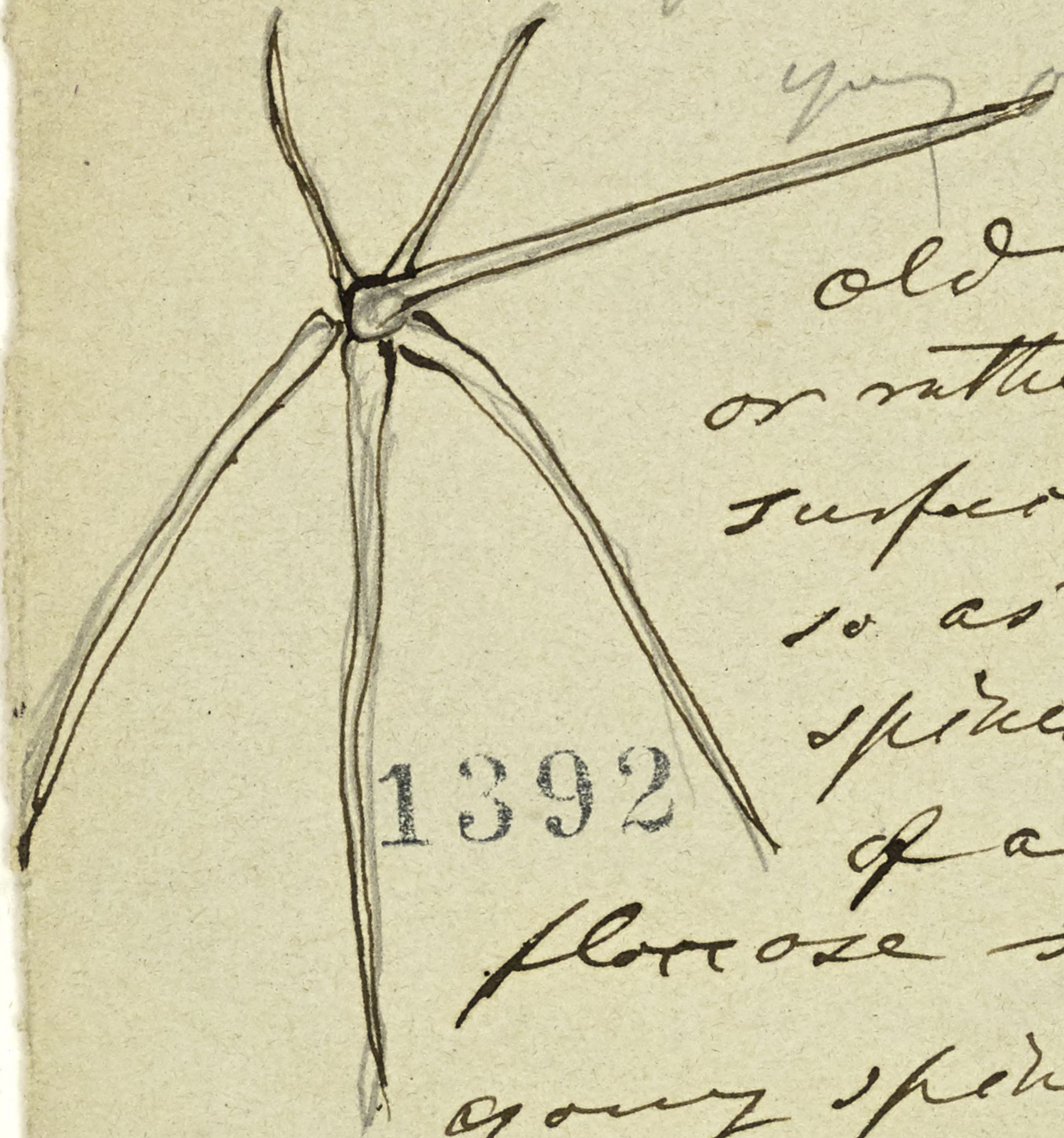
Hort. Cels, Paris

will develop 1 sp 5

March 18th 1869

young ones brown old

whitish

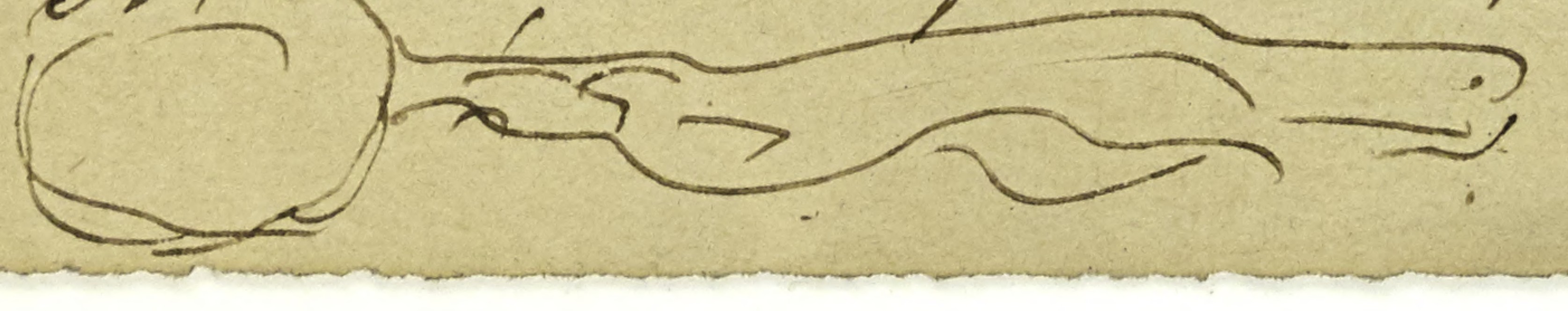


1392

old spines exfoliate or rather ~~the~~ cells of the surface become separate so as to give ~~the~~ spines the appearance of a woolly or rather floccose surface.

young spines are perfectly smooth and red-brown, mostly 1 central and 5 radial ones, lowest longest old spines whitish or cinereous

Fruit (according to Dr Weber) similar to that of Ech. bicolor, yellowish, not fleshy, globose, ~~[illegible]~~ c.m. diameter; much like the fruit of E. setispinus, but drier with persistent flower



; flower pale sulphur yellow

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1393 Hort. Cels. Paris 18/3 69

Ech. Tremulans an original specimen
= Longehamatus, but spines weak,
not hooked, scarcely curved,
plant oval, 10 inches high, 8 in diameter.

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E. longehamatus Gal. Bot. Mag. 4632 Good

1394

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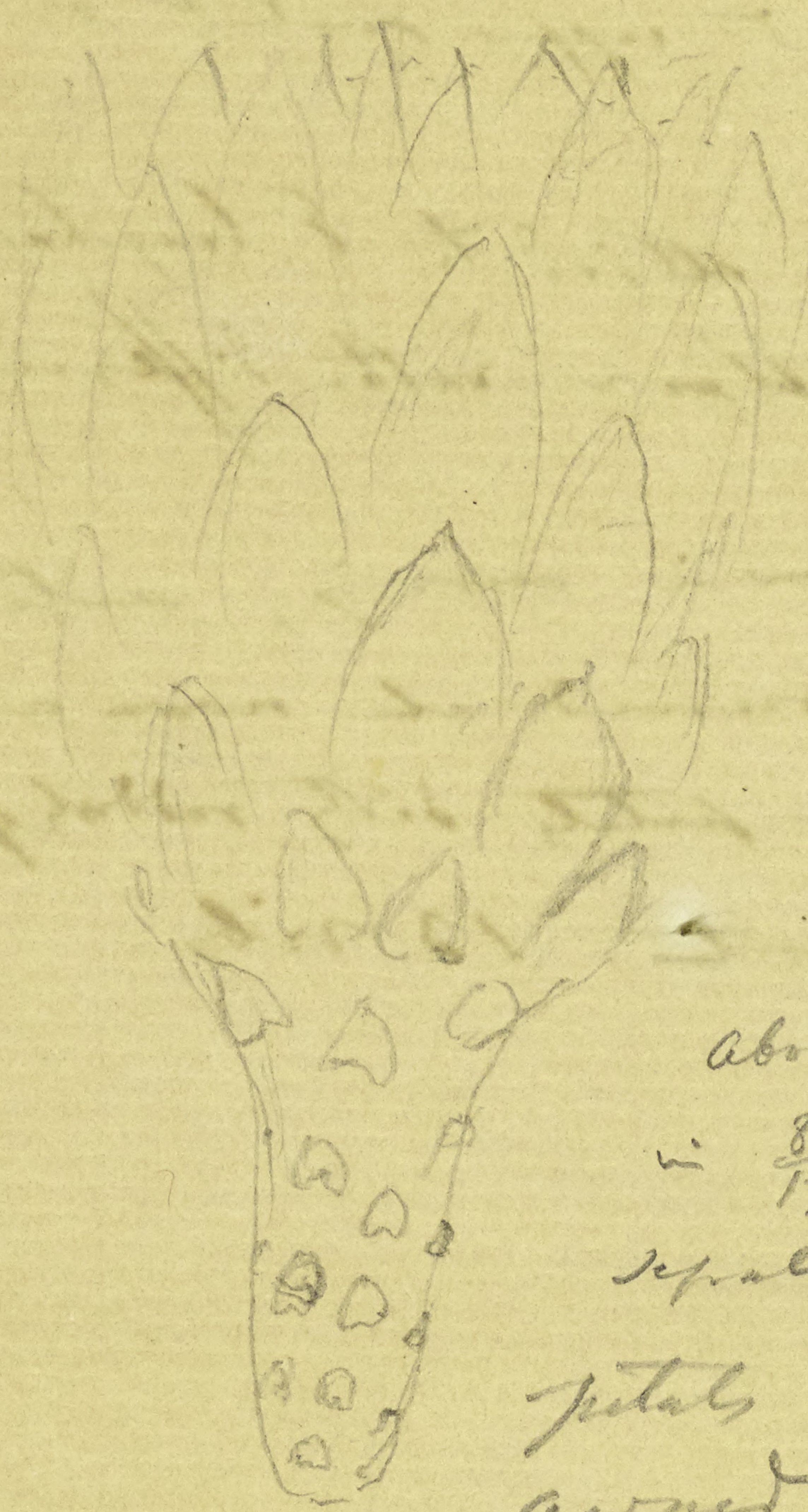
Cambridge Aug 14 & 15
1882

Echinocactus
near longehamatus

1395



about 30 cordate sepals on ovary in $\frac{8}{13}$ order

sepals of tube red, with deeper midrib also about 30, inner large ones 13

petals 21 rose, acuminate, or awned.

nectariferous cavity yellow, moist only ½ line deep staminate part of tube about 7 lines, stamens short; style longer exsert (with stigmas) 18 lines much shorter than petals (— flower 3 inches long) stigmas whitish 13-15 spreading

This was written in evening Aug 14th 1882. Cambridge plant from Monterey, Palmer. but now in morning of 15th a fresh flower opened, deep yellow! It is similar and closely allied to Echin longehamatus. plant globose 5 inches dia ribs sharp, undulated — One central curved or hooked spine, 1¼–1½ in. long about 5 red short ones radiating below, ½–¾ inch, 2 or 4 lateral white ones on each side; above 3–5 stouter red ones 1-1½ inches which may be considered upper central ones, or upper radial ones.

The plant is closely allied to E. longehamatus, spines and colour of flower rather different.

Aug 17 fl deep yellow in morning, outer petals & inner petals recurved at noon and partially rose coloured; inner petals dirty reddish yellow plant 5 inches diameter 13 ribs

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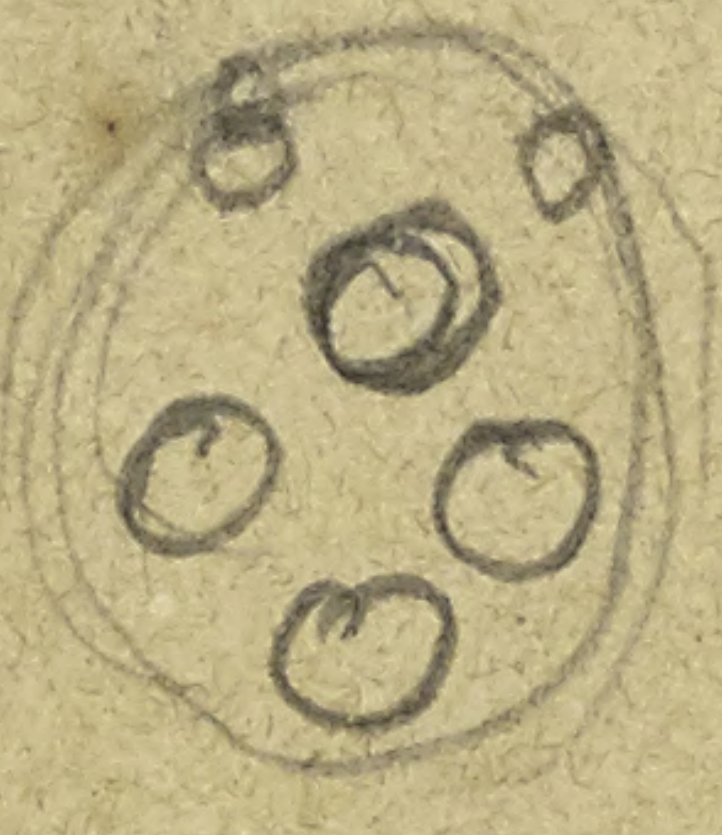
Echinocactus mutabilis

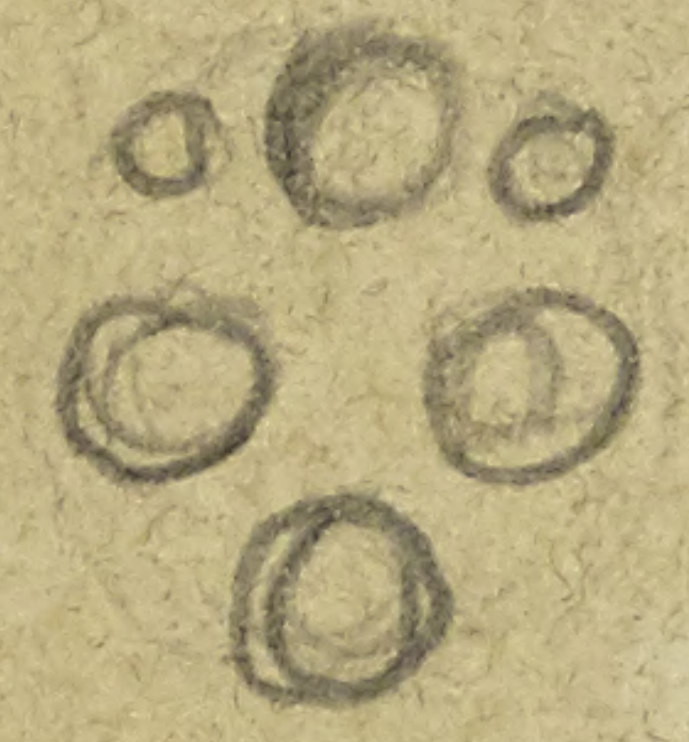
At Hanke's, Prag July 10th 1869

3 inches diameter, ovate-globose, 15 deep ribs strongly tuberculate

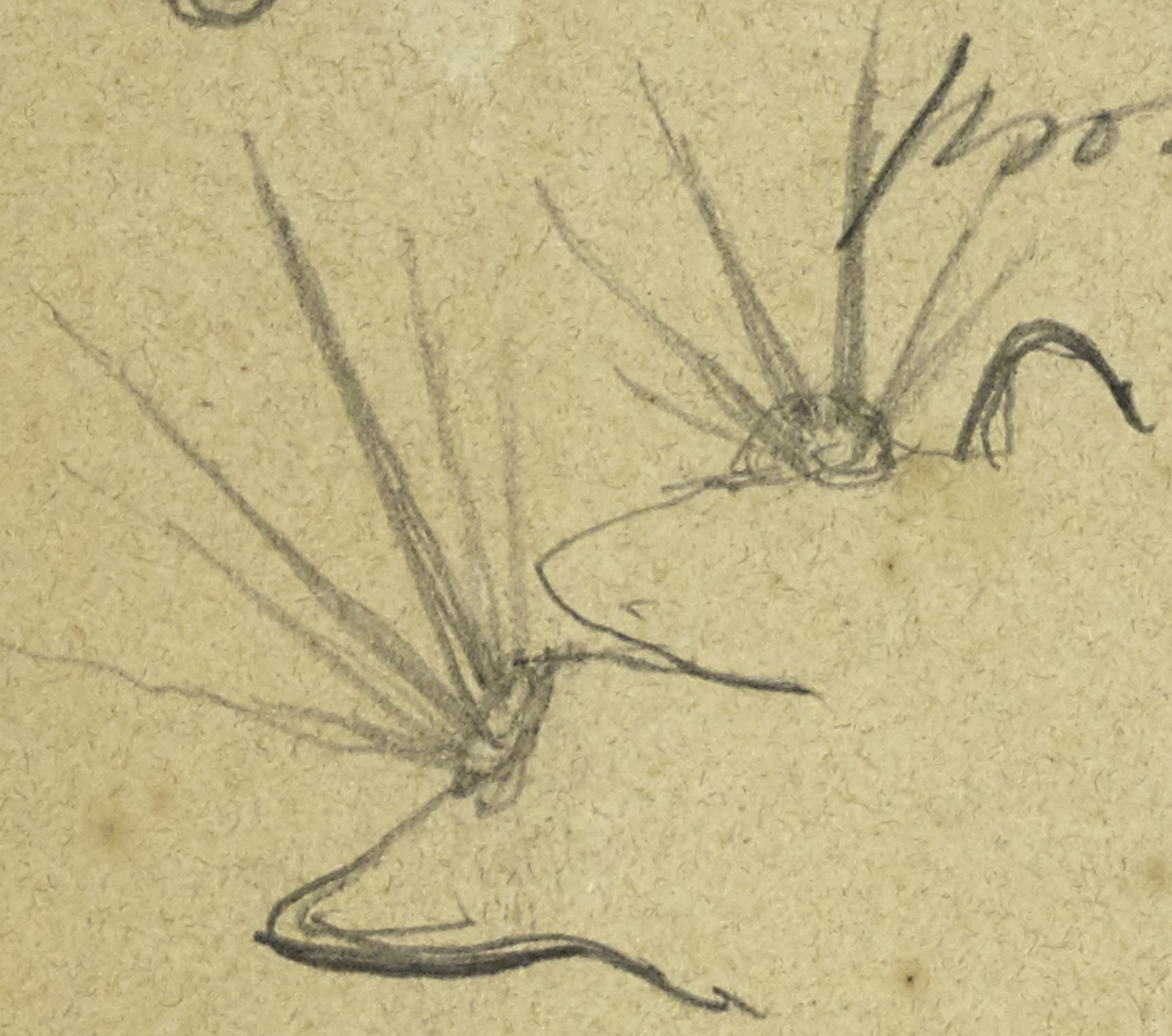
1396



6 black spines rather stout, especially the 4 lower ones, the upper one of which is directed upward — Stouter Spines 1 inch long, black



Tubercle under the areola remarkably prominent, apparently growing yet, after being long (a year or more) formed, and bursting the epidermis



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Herb Martii
Aug 1869

Echinocactus macrodiscus Mart.
Act. nov. Nat. Cur. 16. t. 26. (part I)
communic. Keerl 1830. lect. Tlalpujahua, Mex.

flowers and bunches of spines, spines annulated, straight, especially the stout central ones
sepals very numerous, imbricate, petals narrow, irregularly lacerate, bristle-pointed —
Whole flower very much like that of
1397 E. cornigerus — see figure & descript. in
The text says that it was collected by Karwinski the label, by Keerl, but Keerl collected only at Oaxaca

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Echinocactus macrodiscus from Queretaro
seen spines at Webers; which resemble much my
E. Parryi.

1398

Paris 1869 March

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Koepnicker Strasse 83

337

Echinocactus myriostigma at Dr Haseloffs
Berlin June 10th 1868

1399

Here and at Dr Poselgers numerous specimens raised from seed, always 5 angled and depressed, and marked with the characteristic white dots, which consist of small bunches of hair; but the ribs are either narrow, much compressed, with a sharp edge, or thick with a rather obtuseish edge.

E. myriostigma, coptogonus (always 8-angled) ornatus, capricornis have all this peculiarity ~~State~~ that when old they produce buds (when transversely cut) from the woody ring near the centre (apparently from the centre) or rather the cambium, just outside of it; in young plants the buds come, as almost always in ~~other~~ species, from the edge of the ribs.

Flower 1¾ inches long elegantly marked & with numerous ~~lance~~ linear-subulate black & black-ciliate sepals over ovary and short trumpet-shaped tube, woolly in the axils, and with pale yellow petals.

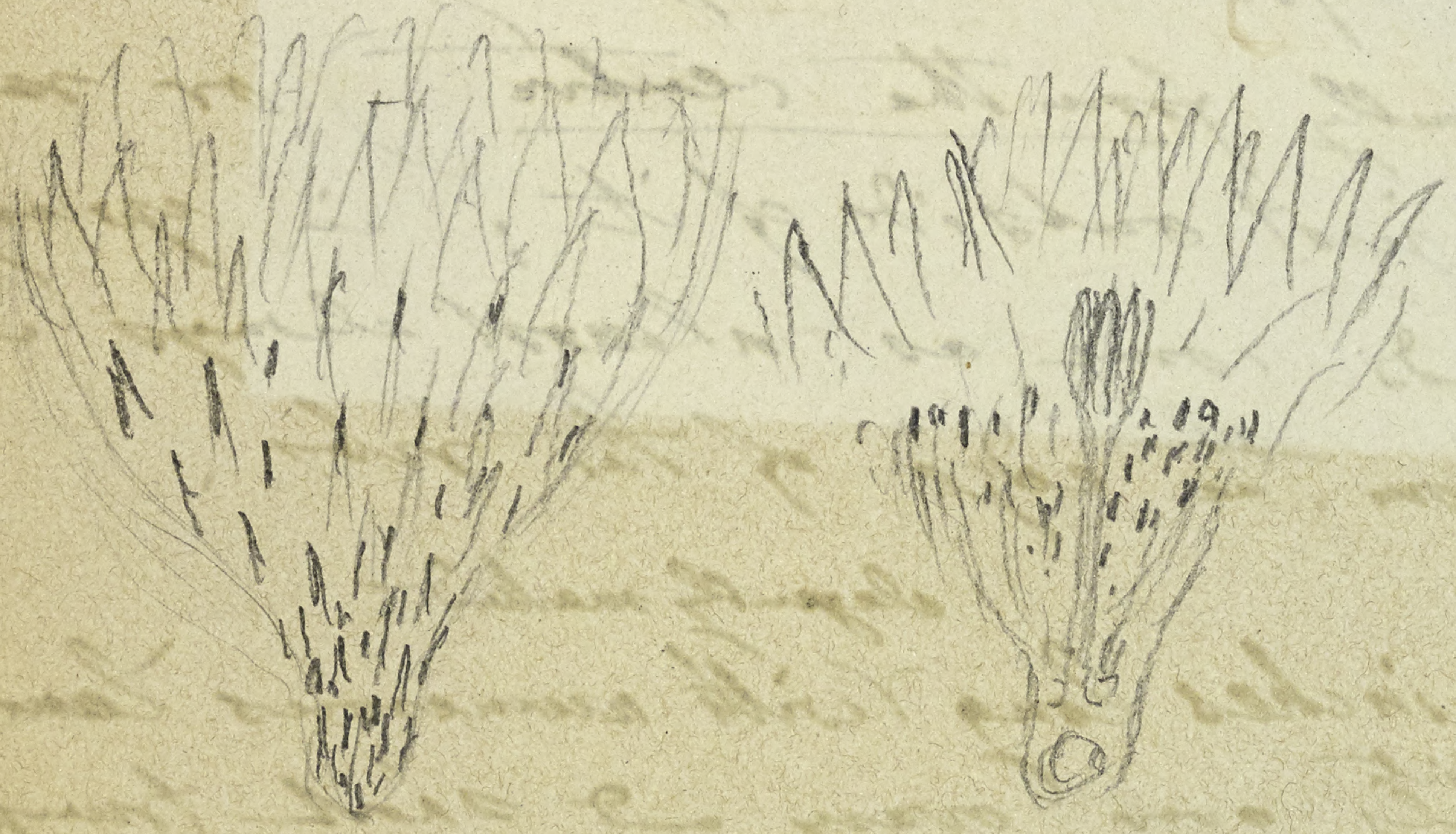
Sepals on ovary 40-50 about 1 line long, on tube 60-~~75~~ 1½-6 lines long, upper ones black only on the upper part, or tipped with black, yellow with red [illegible] all linear subulate — The black tips are fringed with black ciliae.

About 12 innermost sepals, almost as long as petals but all with black tips

Petals about 50 (in 3 series) lance linear, acuminate somewhat denticulate, pale straw yellow.

Naked space in tube very small, nectariferous staminate part 5–6 lines long, rapidly widening stamens short

Style longer than stamens stigmata 6 linear obtuse erect, pale yellow



Cambridge Aug 17 1882

Echinocactus myriostigma

flowers 2 inches long, 3 inches wide open

petals 50-60 sulphur yellow oblanceolate bristle pointed 1½ in. long.

7 bristle pointed stigmas spreading, scarcely exceeding the stamens

numerous subulate black sepals on ovary, in rather dense wool

sepals of tube numerous, pale yellow with a long black woolly tip

nectarium cavity only about ½ line deep

stamens inside funnel shaped part of tube 6-7 lines deep.

1400

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1401

mirbelianus

Echinocactus (= ornatus fide Weber) Queretaro 5/4

fruit as large as a cherry!

opens by 4 valves

POST-COUVERT EIN GROSCHEN POST-COUVERT EIN GROSCHEN POST-COUVERT EIN
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Hort Pfersdorff, Paris 2/4 69

Echinocactus Odieri, with numerous very small spines, similar to the E. Jussieui, which however bears strong spines; —
Both globose, 2—4 inches diamt.,
E. Odieri resembles somewhat a Pelecyphora, tuberculated, with spiral mamillae.

1402

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hamatulus hamulatus

Echinocactus pubispinus n. sp

Pleasant Valley near Salt Lake desert
Henry Engelmann May 9th 1859

Parvus turbinatus, costis 13 subobliquis, compressis, interruptis areolis orbiculatis; aculeis ~~parvis~~ brevibus irregularibus ve adultis velutinis, demum denudatis, ~~apice ad~~ saepe curvatis plerumque 5-7 radialibus inferioribus brevioribus, 1-2 superioribus robustioribus, ~~subcentrale~~ aculei rectis, curvatis t. hamatis, ~~subcentrale~~ aculeo centrali robustiore longiore arrecto hamato sursum, saepe ~~carente~~ deficiente

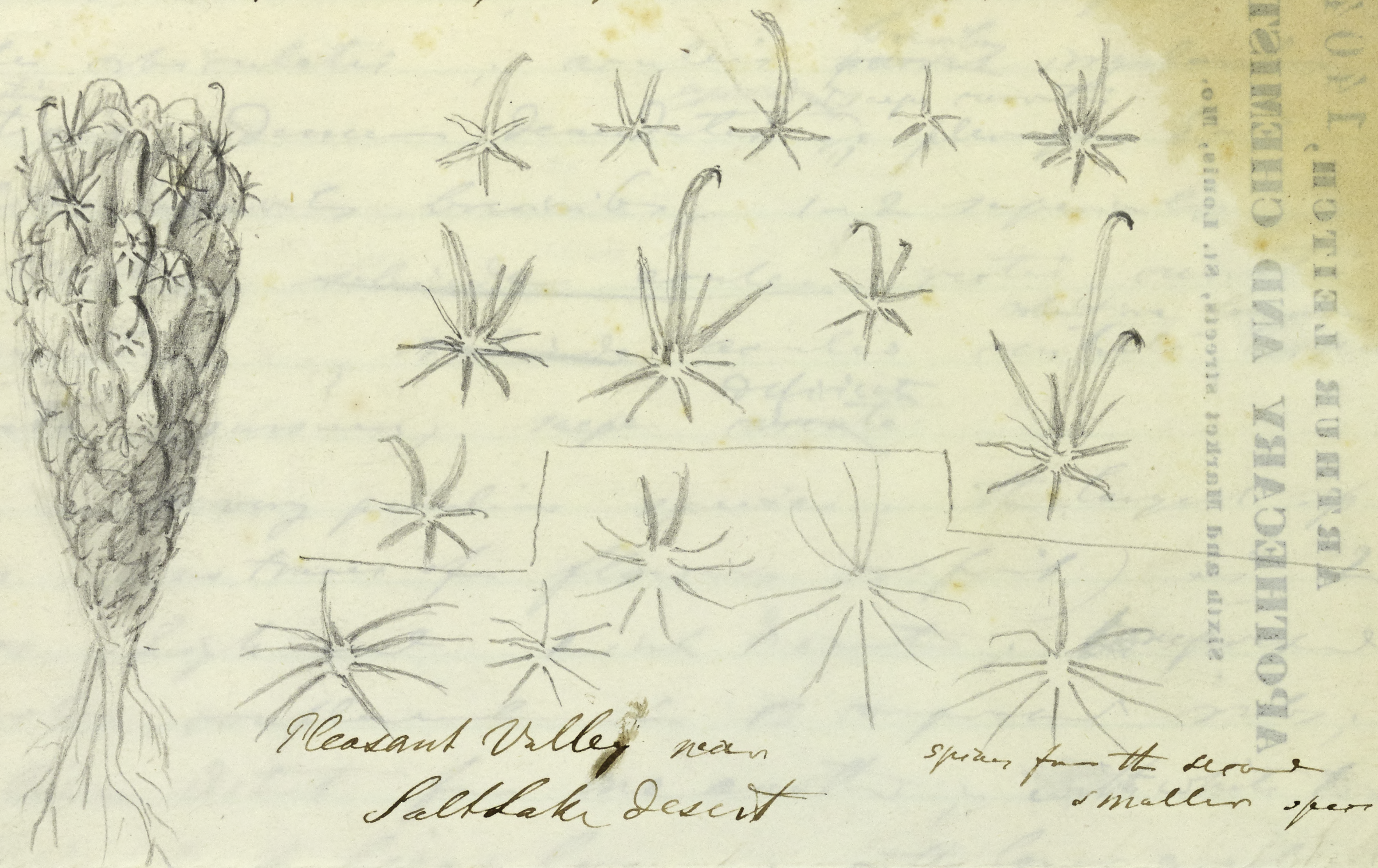
A very peculiar species; the largest sp. seen (no traces of flowers or fruit) is 2 inches high and 1 inch diameter; ~~to~~ compressed tubercles confluent in 13 compressed ribs; 5-6 lines distant from one another; with white tomt ad spines 1-4 lines long; with lower areolas 5-6 in number, with the upper ones a little longer and stouter, then 1 or mostly 2 upper ones become still stouter and the number increasing to 10. one or more of the upper ones become hooked, at last here & there a central spine appears, and 5-6 l. long, stouter and strongly hooked. All the spines are thickly covered with tomentum, only the blackish point being denudated, but with age this coating disappears. — Another specimen has from 8-12 radial and no central spine, the radial spines are more slender and longer than in the ~~last sp~~ ~~other specimen~~ described and the spines are less woolly.

Kirk 300

1403

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Dec 1859


spines from the specimen figured

Pleasant Valley near
Saltlake desert

spines from the second
smaller specimen

5–6 in number, with the upper ones a little longer and stouter, then 1 or mostly 2 upper ones become still stouter, and the number increasing to 10. one or more of the upper ones become hooked, at last here & there a central spine appears, and 5–6 l. long, stouter and strongly hooked. All the spines are thickly covered with tomentum, only the blackish point being denudated, but with age this coating disappears. – Another specimen has from 8–12 radial and no central spine, the radial spines are more slender and longer than in the ~~last spec~~ ~~other specimen~~ described and the spines are less woolly.

ARTHUR LEITCH, 1404
APOTHECARY AND CHEMIST,
Sixth and Market streets, St. Louis, Mo.

1860

1405

Echinocactus pubispinus (spec. nov.): parvus turbinatus; costis 13 subobliquis compressis interruptis tuberculatis; areolis orbiculatis; aculeis breviusculis rectis saepe curvatis albidis apice adustis velutinis demum nudatis, ~~saepe curvatis~~; radialibus inferioribus lateralibusque 5–8 brevioribus, superioribus 1–2 robustioribus rectis, curvatis s. hamatis; aculeo centrali ~~nullo~~ deficiente seu singulo robustiore longiore arrecto sursum hamato; flore —; ~~bacca~~ —.

Pleasant Valley near the Salt Lake Desert, where only 2 specimens were found May 9th, without flowers or fruit, but showing in the small supraspinal areolae their vestiges, and thus ~~proving it to be~~ the character of the genus.

Stem 2 inches high, 1 or 1½ inches in diameter; compressed tubercles confluent in 13 ribs; radial spines 4–6 lines distant from one another, 1–4 lines long, white tomentose pubescent or almost, more so than I have observed in any other Cactus; on the lower areolae I find only 5 or 6 spines, the upper ones a little longer and stouter than the balance; farther upwards the number increases to 10, one or more of the upper spines being ~~still~~ longer stouter and often hooked; at last here and there a central single spine appears 5–6 l. long, stouter and always strongly hooked. At first only the dusky or blackish point of the spine is naked; with age the whole ~~tomentum~~ coating seems to wear off. In the second specimen the spines are a a little longer, more slender, 8–12 in number, all radiating. Ives Exped. Bot. p.

Echinocactus Whipplei Engelm. & Bigelow Cact. Whipp. p. 28 t. 1. ~~var.~~ ~~ut~~ Eng. Synops. Cact. p. 15.

var. spinosior globosus; costis 13 ~~compressis~~ interruptis; aculeis radialibus 9–11 inferioribus saepe obscurioribus, reliquis longioribus ~~albissimis~~ niveis, 2 superioribus saepe longioribus

8

[illegible], ~~[illegible]~~ curvatis, ~~seu raro flexuosis~~; centralibus 4, summo elongato complanato flexuoso, 3 reliquis paullo brevioribus obscuris ~~hamatis~~ omnibus seu solo infimo hamatis; flores see below ~~seminibus~~

F Desert Valley west of Camp Floyd, ~~Scott~~ in July and October, without flowers, and fruit; ~~[illegible]~~ ⌖ below seeds were discovered ~~hid~~ among the spines which are equally like the seeds described and figured in ~~Capt~~ Whipple's Report; ~~the [illegible]~~ the tubercles ~~of the fruit~~ active seedcoat are very minute and distant from one another, each ~~occupying the centre of an angular~~ forming a central protuberance on ~~an angular~~ the otherwise flat surface of an angular cell of 2 or 3 times the diameter of the tubercle itself; the embryo is curved about 3/4 around a rather large albumen. — F E. W. was originally found on the little Colorado, by Dr Bigelow and later on the same stream by Dr Newberry; this variety was ~~met~~ with (in Desert Valley, etc) more than 5 degrees farther north

⌖

(Heads globose) 3 inches in diameter; radial spines 1/2–1 1/2 inches long, central ones 1/2–2 inches in length; seeds see above ⌖

F The ~~Colorado~~ original form from the Colorado mainly differs from this Utah plant by the absence of the flattened upper radial spines.

floribus minoribus; ovario squamis oblongis mucronatis et ciliatis; sepalis tubi oblongo-linearibus ~~margine~~ membranaceis integris, mucronulatis; petalis oblongis; stigmatibus angustis 6–7 brevibus ~~erectis~~ in capitulum globosum congestis; bacca ovata ~~seminibus~~ coronata

fr

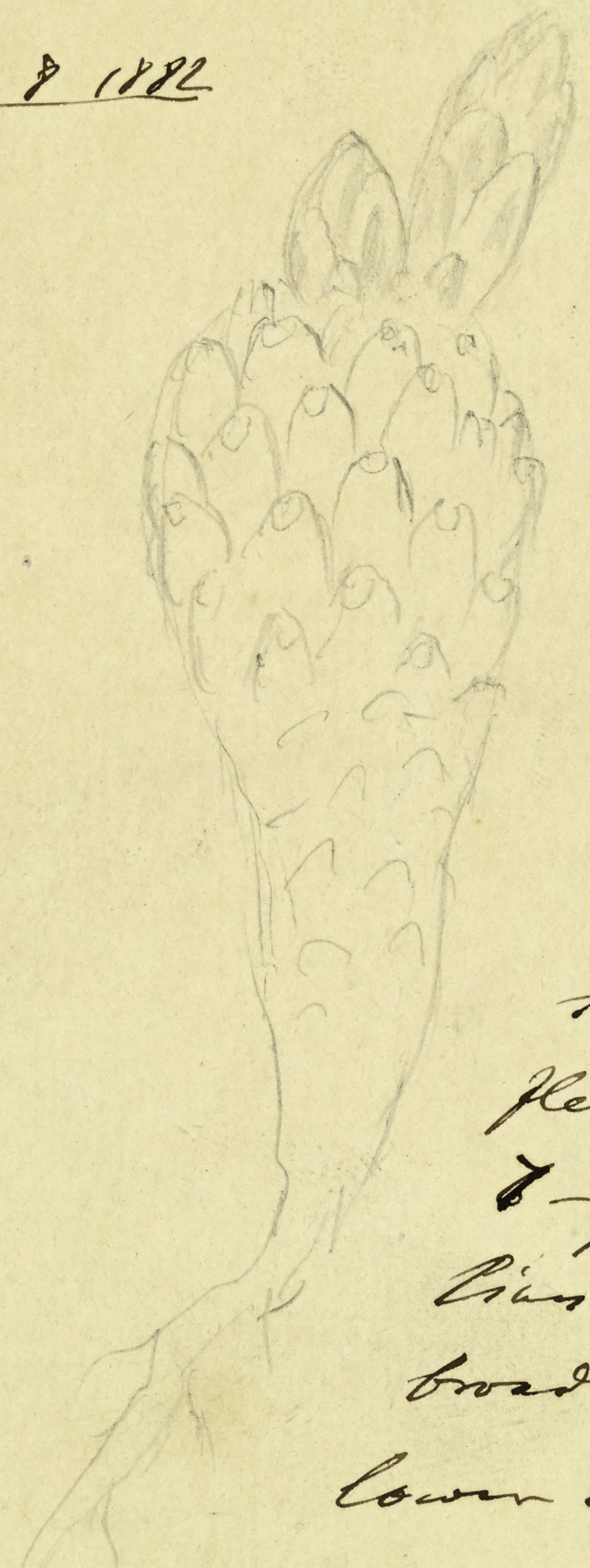
Echinocactus ~~Mamillaria~~ papyracanthus Engelm Trans Ac. St Louis 2. p. 197

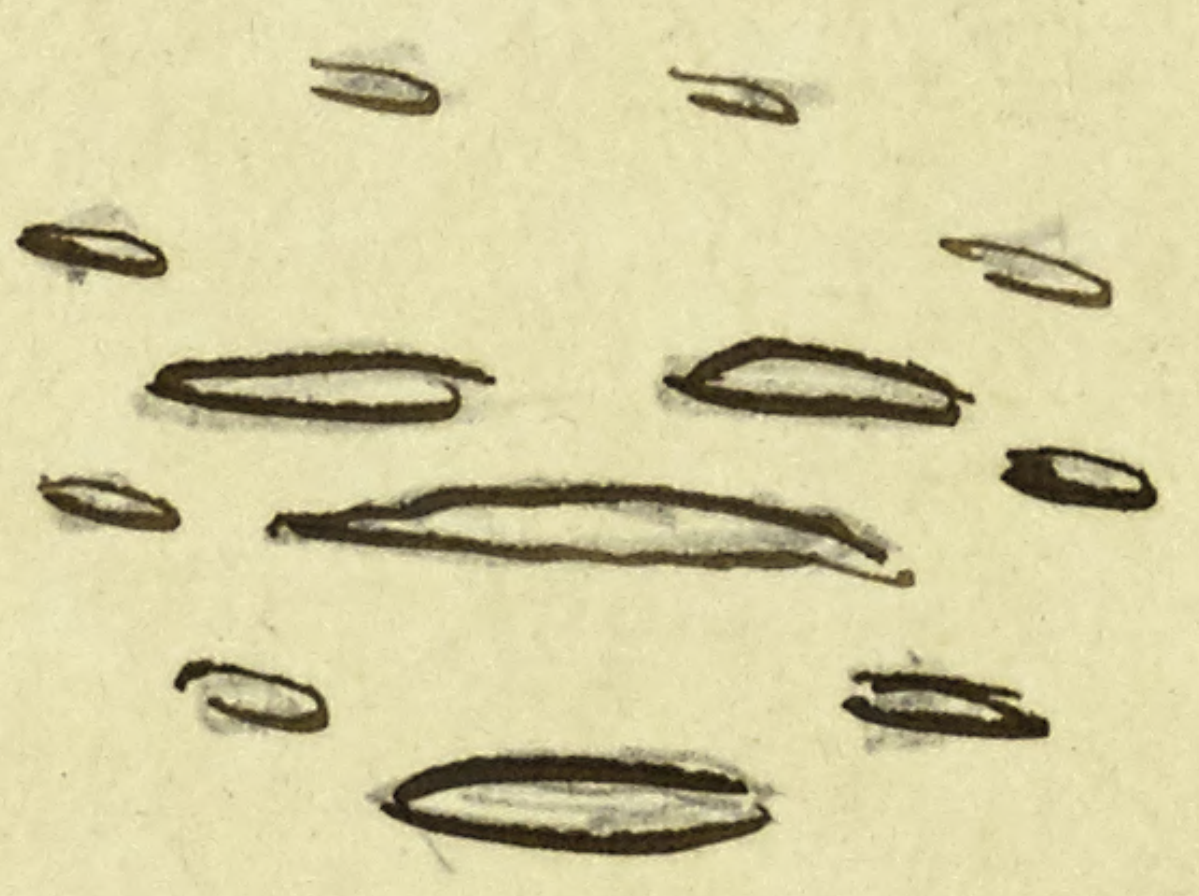
Mamillaria —— Engl Pl. Fendl. p. 49

Synops Cact p. 264

May 8 1882

1406





A. F. Bandelier leg. San Felipe N. Mex.

Turbinate; about 1 inch diameter tubercles short, in 8/13 order, with white shining flattened flexible and flexuous or curved spines 7–9 radial ones smaller 2–4 lines long, one lowest one larger, broader; 3 central ones, the lower of which broadest and longest about 1 inch long $\frac{1}{2}$ – $\frac{3}{4}$ line wide, the two upper ones smaller, narrower. Flowers from the nascent tubercles; floral areola woolly, close above the spiniferous areola; about a single white membranous entire (not fringed) sepal on ovary; 4 or 5 lower sepals of tube similar, gradually larger upper sepals oblong, obtuse, brownish green, with white margins 13–15 in number, petals about 8 smaller and narrower than inner sepals, narrowly

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lanceolate, acute; stigmas 5–6 filiform
light green, far exceeding the stamens.

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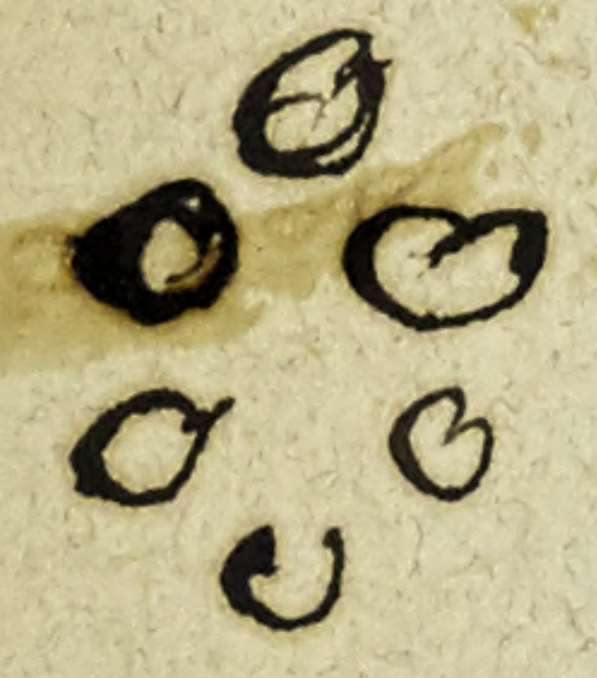
Ech. Pfeifferi HBBerol Jun 1869 globose, about a foot in diameter; ribs 12–13–14 large, wide, sharp; areolae almost contiguous

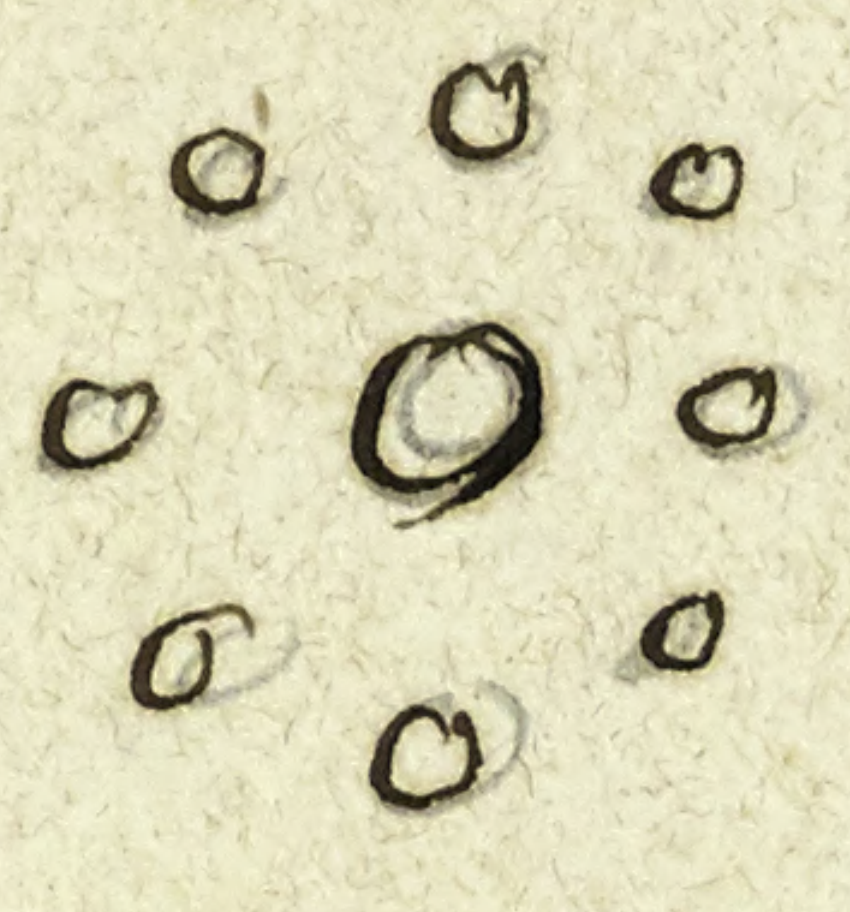


usually 6 radial spines, lower ones a little more slender —

1407

Ech. Pfeifferi is slightly similar, but 11–12 ribs tuberculate obtuse sp. 6 inches high; — areolae orbicular, 8 rad 1 cent spines yellowish, slightly curved.

Hort Dyck Aug 1857



Ech. Echidne is very similar to Pfeifferi spines only more brown; — 13 ribs

E. gibbus with yellow flowers

Hort Dyck Aug 1857

11. ribs is the same (I have dried flowers.)

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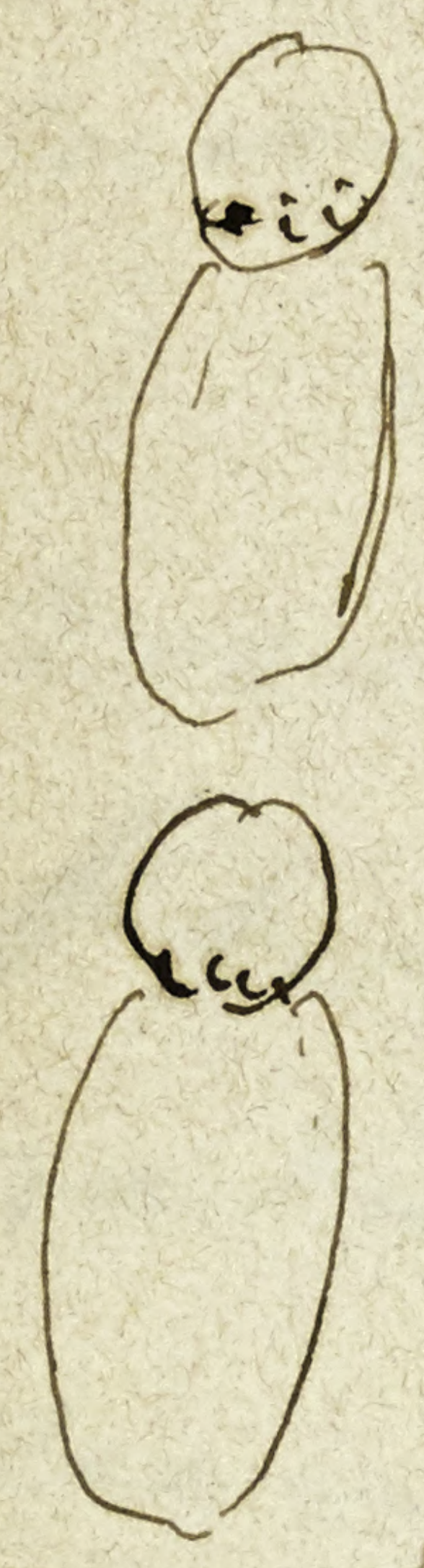
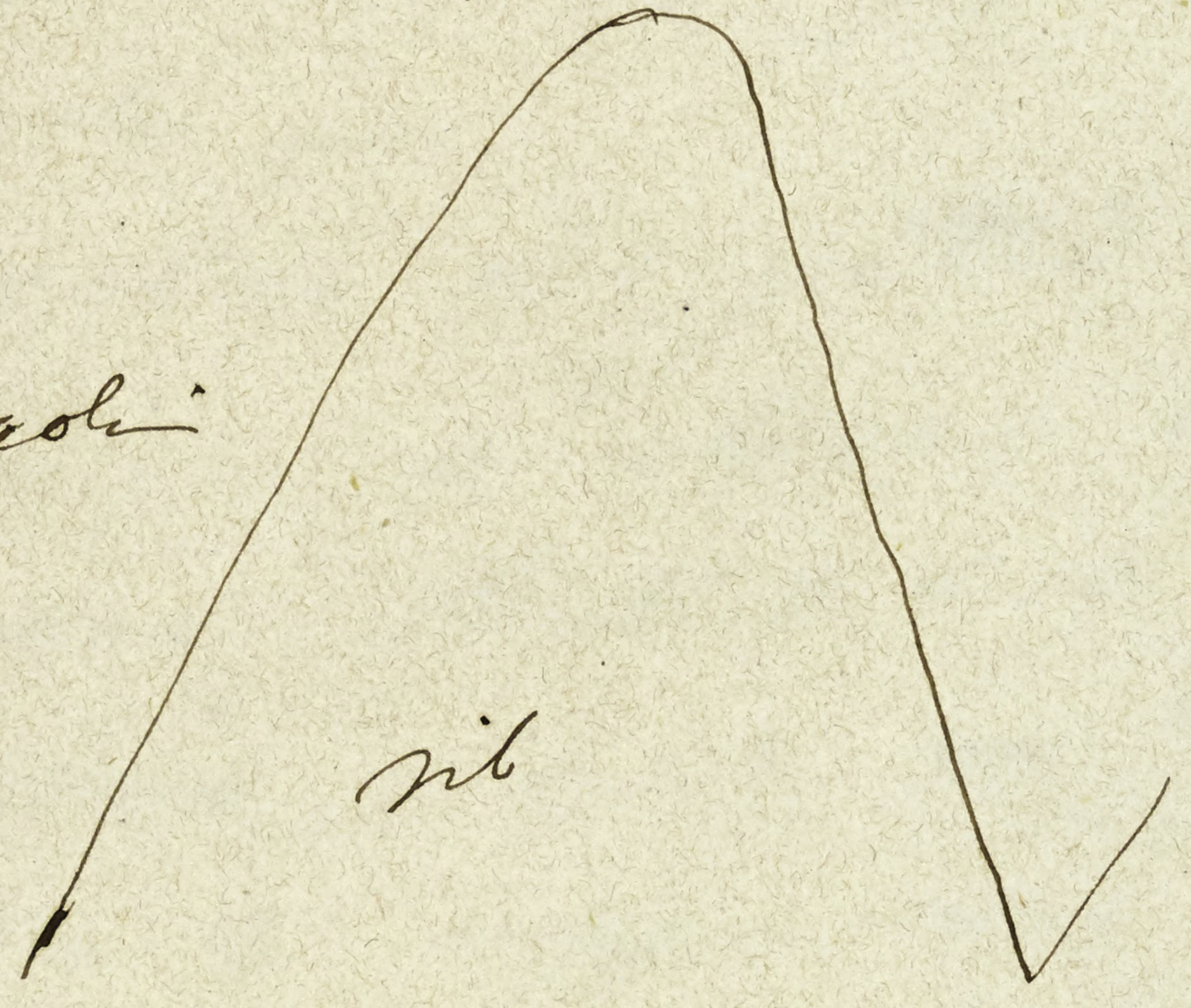
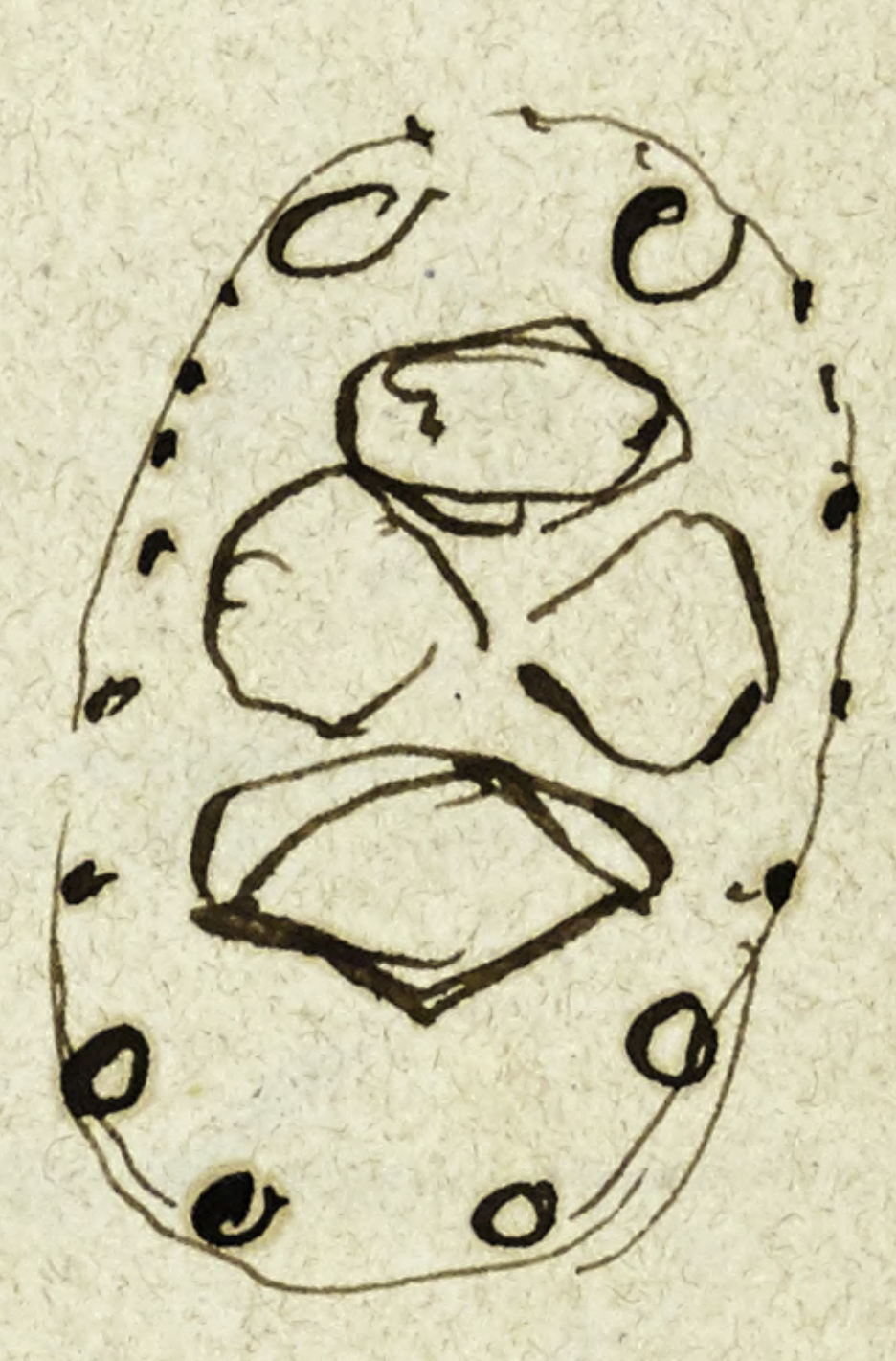
E. pilosus Galeotti (~~Pfeiff~~ Salm Cact. cult. 1849 p. 148

Ech. Stainesii is the same as E. piliferus Lem.

A specimen is 235 ℔ in weight, 5 feet high, 18–20" diameter, 18–21 ribs (there are 5 or 6 large plants) areolae oval, very closely approximate







Hort Kew Aug. 1857.

Young spines beautifully red, older ones strongly annulated.

Hooker says (fide Labouret p. 187) that the largest sp. of E Stainesii had 44 ribs and weight 1000 pd

1408

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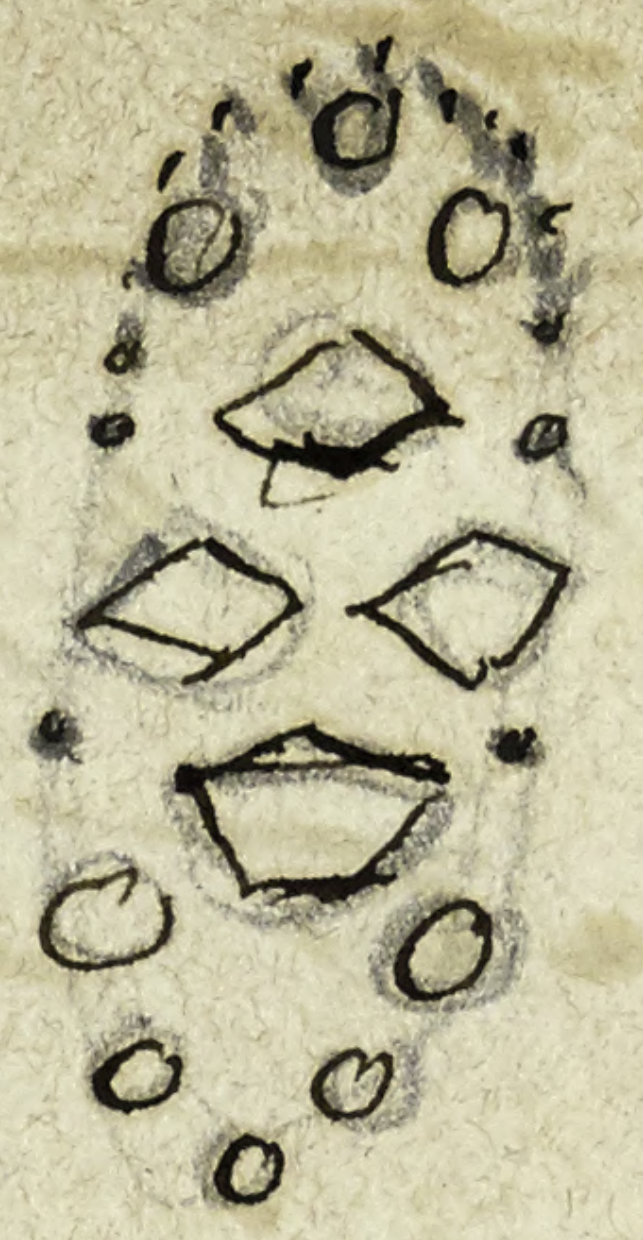
(= Stainesii)

Ech. pilifeus ~~found~~ by Dr



Poselger in abundance
in the Sierra de Catorre
olumns 5–9 feet high —
many together (from the same root?)
ellow flowers; young specimens with 13
ibs (5 inches high) older ones 21–27 or
more ribs —

Areolae elongated, contiguous floral
Areola; 4 interior cruciate spines;
lower one stoutest and longest; 5 lower
radial ones, and on the small specim
een 1–3 upper ones; on the sides of
Areola a few, on the upper margin
great many curly hair like
spines, short and thin. — Spines annulate

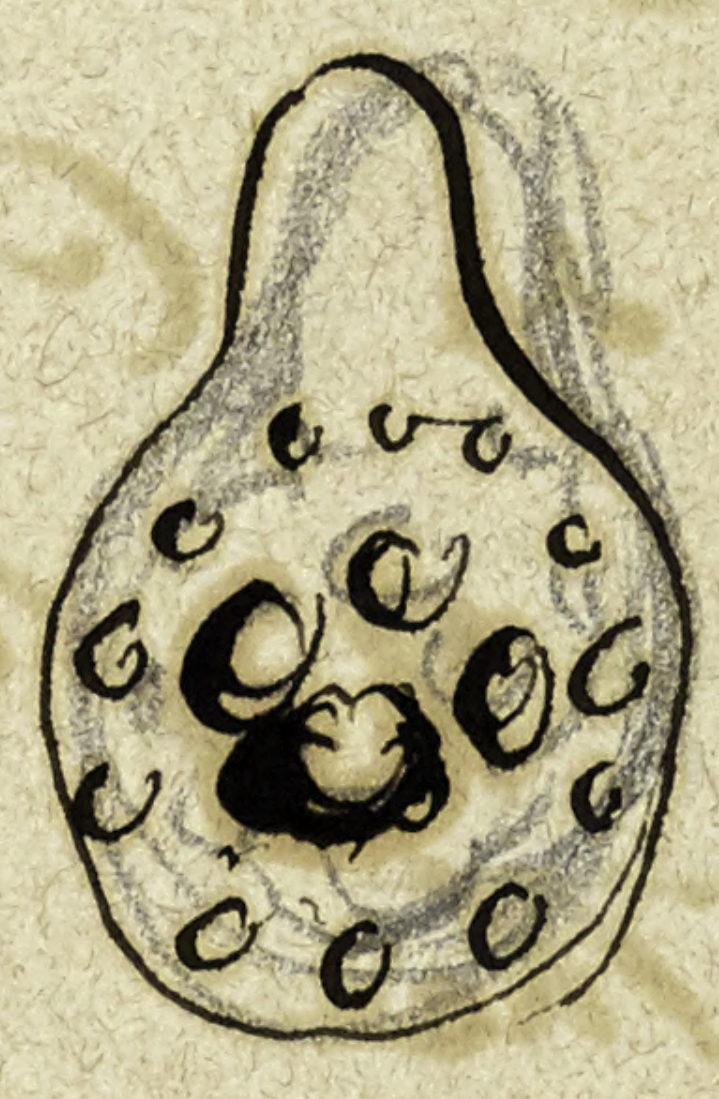
Ech.

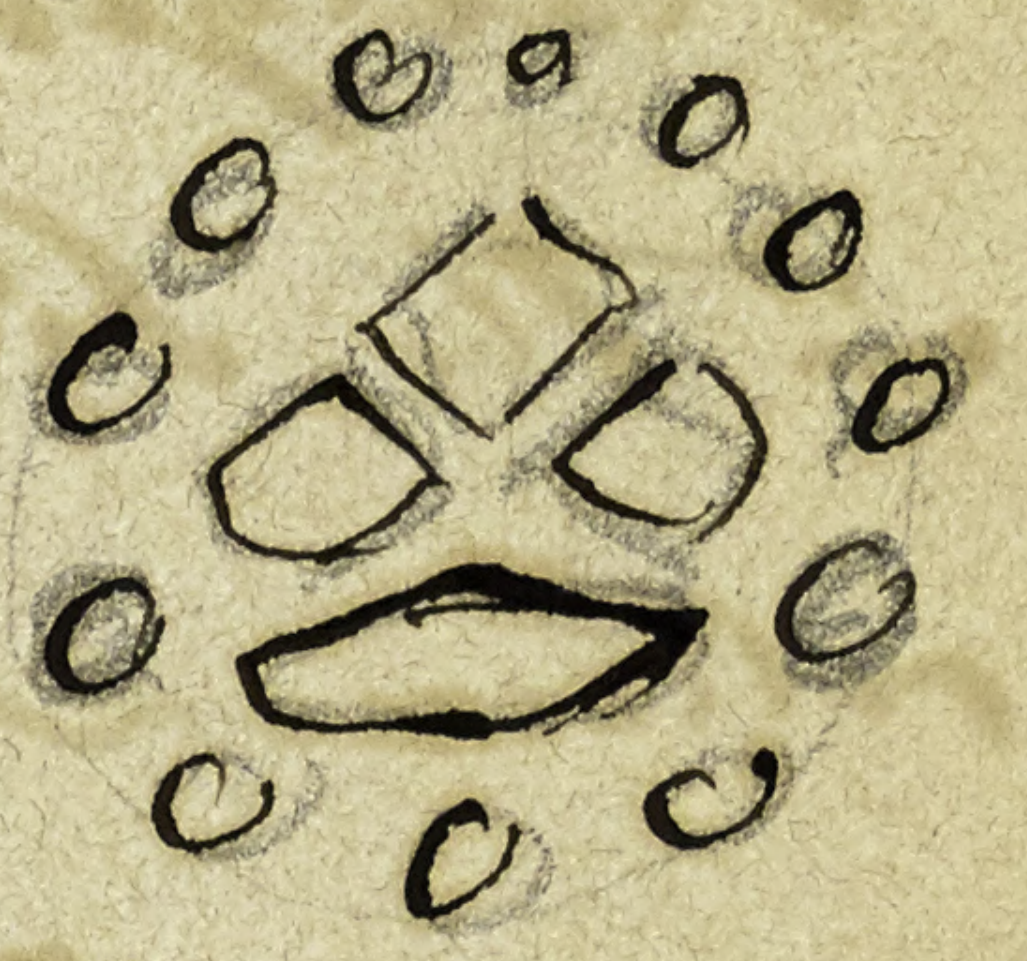
1409

Notes made at Dr Poselger's Berlin March 1857

Echinocactus robustus Poselg. Living specim

4-5 inches high, ovate, 12 ribs, compressed, sinuate tuberculate —

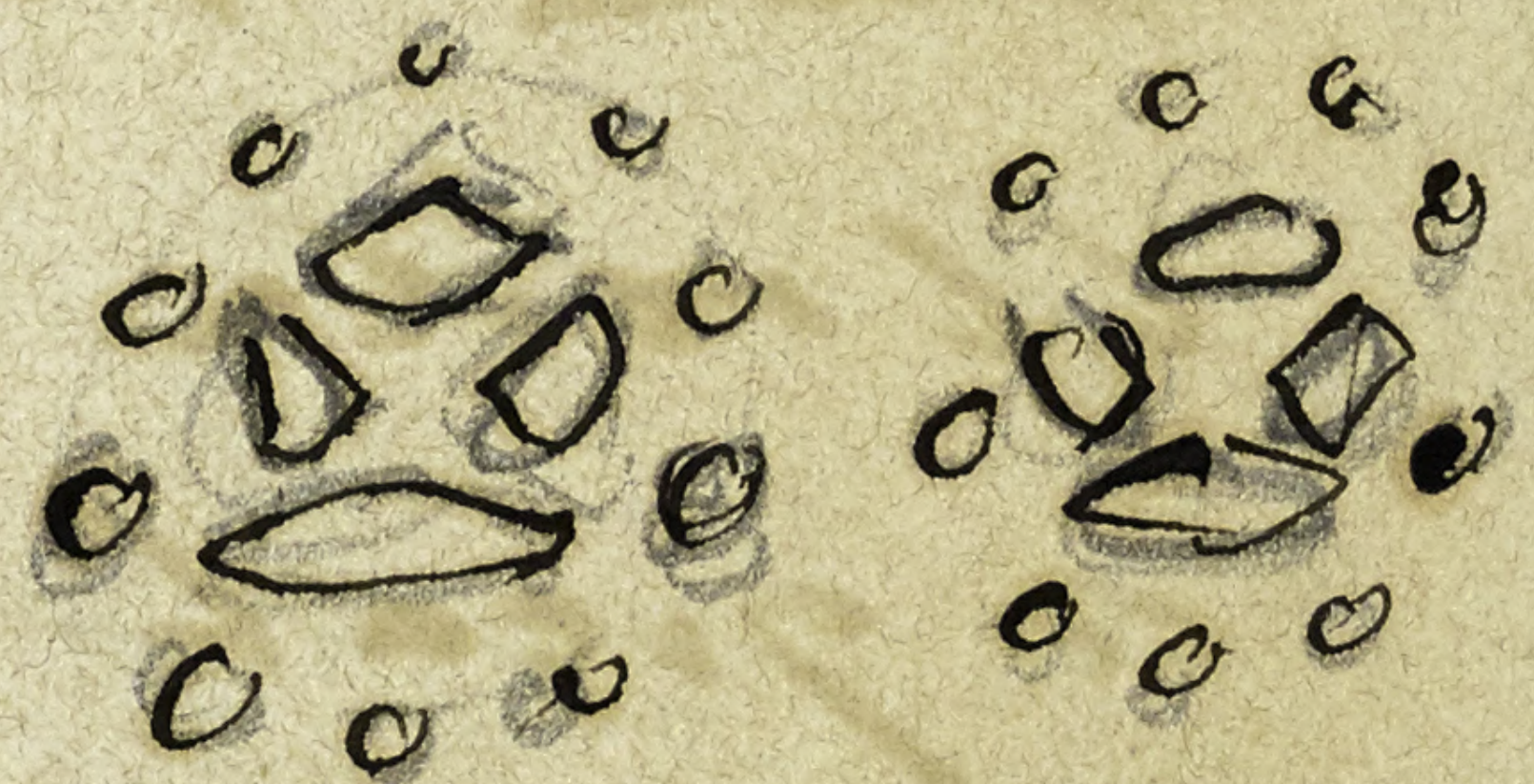




4 central spines, lower 2-2½ inches long flat or channeled hooked, others angular & somewhat flat shorter nearly 2 inches 3 lower radial spin hooked! 5 thinner ones above the radial ones and 4 on the sides; lateral radial spines stoutest, all, especially the upper ones angular —

Floral areola short, contiguous to the aculeiferous one.

Ech. sinuatus Dietr. Living specim



13 ribs, spiral, compressed, tuberculate; contiguous floral areola; 4 central spines flattened and angular, especially the lowest, hooked one, 8-9 radial spines angular. —

Ech. setispinus has been known long under the name E. Marisianus

1410

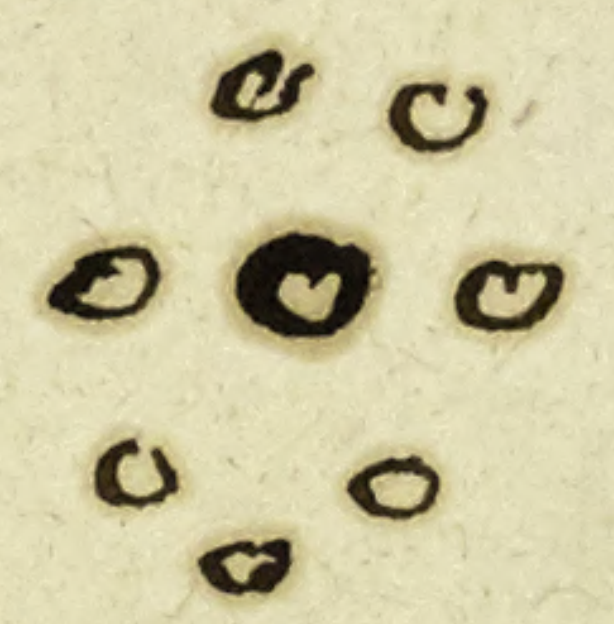
Kew Aug. 23 1869

"Echinocactus Pfersdorffii Forst" 10 inches in diam.

18 inches high, 19 sharp ribs

circular areolae

yellow annulate spines, 3/4–1 1/2 inches long,
central one a little stouter, when old all
getting dark –



1 central, 7 radial, patulous
but not radiating.

Flowers small yellowish – Whole plant similar
to Pfeifferi? Flowers not quite central.

at Hanke's, Prag July 10 1869

Echin. phimatotele, spirally arranged tubercles with 3 spines.

fl. central, sepals fringed, lower ones transverse and auriculate

1411

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Hort Guedeney, Vesinet 5/4 69

Echinocactus pumilus; is a very small plant, bearing brown wool, inclosing extremely small flowers; fruit size of a pea.

1412

Echinocactus Cummingii flowers much like Echinocactus ([illegible])

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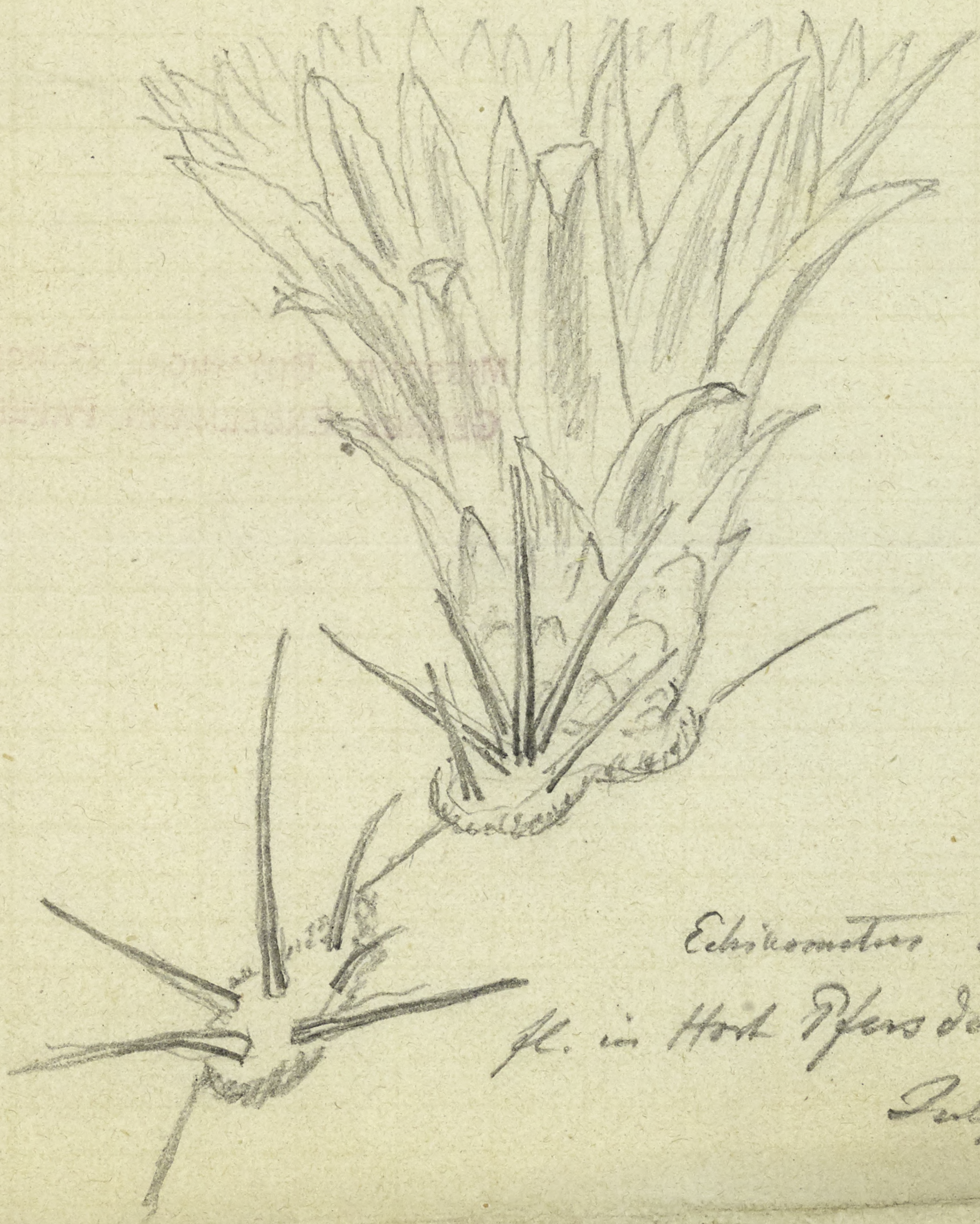
Heed 347-350



1413

Echinocactus Pottsii Salm
fl. in Hort Pfersdorff
July 1872

sketch after A Weber's coloured figure
(Dr Chirrot ad nat del)

fl. externally brown red, especially along the midribs, margins paler
petals acute not denticulate, pale yellow

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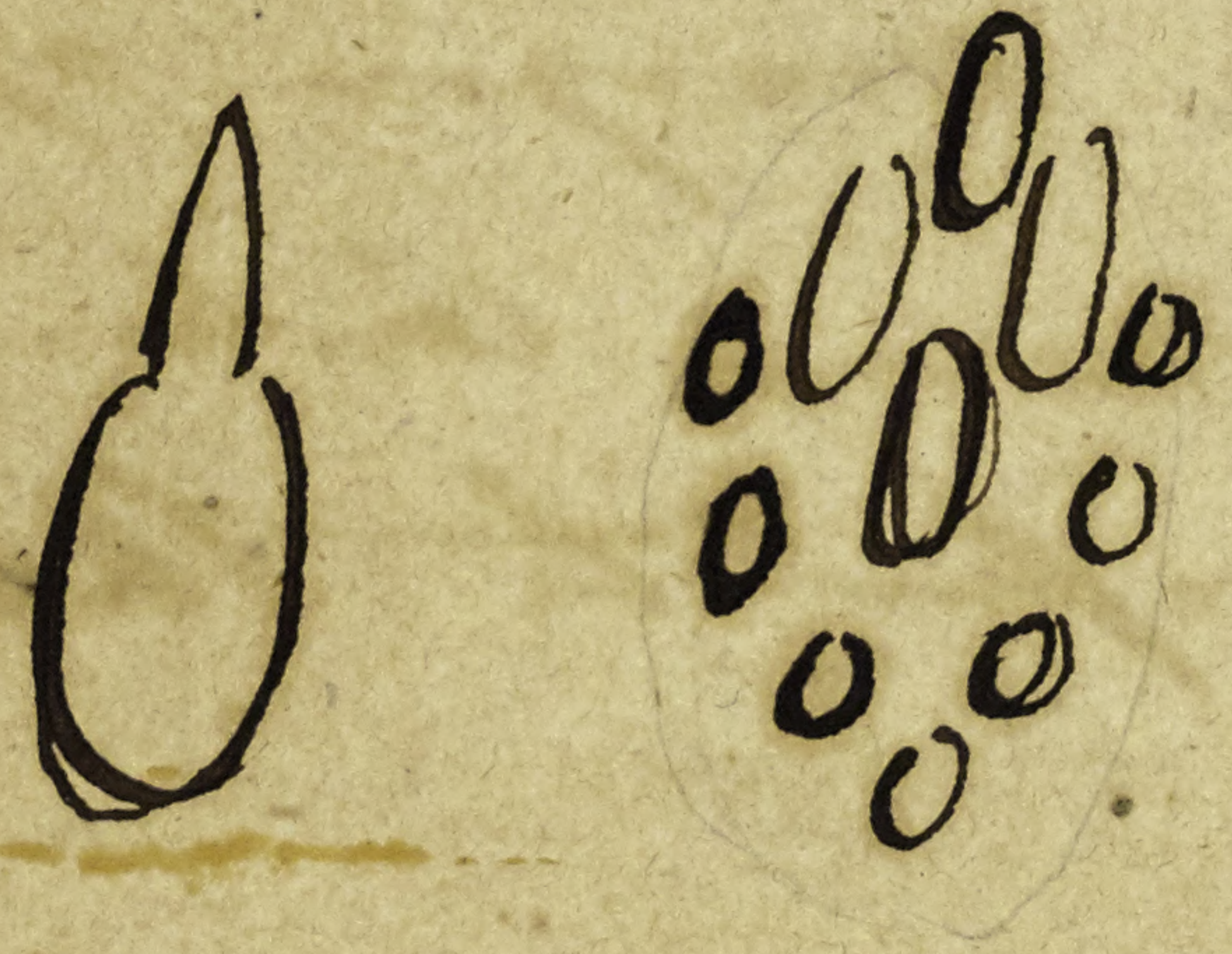
No. OVV E. Pottsii ; 5 inch high 7 in diameter 1411

258 Echinocactus, as large as ~~the last~~; somewhat depressed.
13 acutish ribs broad at base, triangular in section;
areolae oval distant 1½–2 inches; with lanceolate pointed floral
areola;



4 central spines on upper part of Areola,
laterally compressed, straight or
slightly curved, (all spines annulated.
7 exterior spines laterally and below.

Notes on a few Cactaceae
made at F. Scheer's, Northfleet,
Kent, Aug 22 1857

(most of the notes I made on the margin of Scheer's Cactaceae in Seemann's Botany of the Herald) The numbers refer to this publication